Poster Session 1
Monday 27 March, 5.30 PM – 7:30 PM
Location: Hall D
Sponsored by Beckman Coulter

P1.01. A force-spectroscopy assay for studying binding of DNA repair proteins at individual DNA double-strand breaks Nicholas Bell, University College London	**P1.02. How plants avoid 'bursting the bubble'** Jared Carpenter, John Innes Centre	**P1.03. A novel tensioned explant human skin platform for clinically relevant applications across medicine and the aesthetic and pharmaceutical industries** Paul Campbell. Ten-Bio
P1.04. A nanomaterials approach to functional tissue substrates and cellular stimulation Alice King, University of Sussex	**P1.05. LifeHack: An open-source, modular microscope for live & fixed cell single molecule imaging with high performance sample stabilisation** Josh Edwards, University of Warwick	**P1.06. Within-host modelling of T cell memory generation** Yiping Zhang, University of Warwick
P1.07. In vitro spatiotemporal characterization of immune-tumor interactions reveals impairment of T cell cytotoxicity by mutation of adenomatous polyposis coli. Valentin Bonnet, Institut Pasteur / Ecole Polytechnique	**P1.08. Understanding polymicrobial communities via direct microscopical observation in microfluidics** Leonardo Mancini, University of Cambridge	**P1.09. The effect of the spatial distribution of control agents on the spatial spread of resistance** Wolfram Moebius, University of Exeter

P1.10. The Characterisation of Xog1 a β-1,3-glucanase from Candida albicans for Potential Biotechnological Applications Jennifer Littlechild, University of Exeter	**P1.11. Star-shape: investigating astrocytes' mechanobiology and shape-function dynamics** Ludovica Guetta, King's College London	**P1.12. Resolving the membrane attack complex on live bacteria with atomic force microscopy** Christian Bortolini, King's College London
P1.13. Identifying Immune Status to COVID-19 Using Dielectrophoresis Ms Krista Clarke, University of Surrey	**P1.14. Measurement of cell cortical tension using AFM parallel plate compression** Andreas Weber, London Centre For Nanotechnology, University College London	**P1.15. Membrane Targeted Azobenzene Drives Optical Modulation of Bacterial Membrane Potential** Tailise De Souza G. Rodrigues, University of Warwick
P1.16. Innovation in the assessment of antimicrobial properties of biogenic nanomaterials Tailise De Souza G. Rodrigues University of Warwick	**P1.17. Evolution of populations in fluctuating environments** Matthew Asker, University of Leeds	**P1.18. Understanding how antigen mobility influences B cell activation: from early signalling to antigen internalisation** Hannah McArthur, King's College London
P1.19. Biophysics of Mammalian Primordial Germ Cell Migration William Foster, University of Cambridge	**P1.20. A molecular and mechanical study of cell shape changes and cortex reorganisation during post-mitotic spreading** Jeanne Lefévère-Laoide, University of Cambridge	**P1.21. Study of cell-cell adhesion formation and dynamics in cancer cells using a hybrid cell - lipid bilayer system** Sayantika Ghosh, Centre of Mechanochemical Cell Biology
P1.22. Scale-invariance in coarse-grained models for red blood cells Simon Hanna, University of Bristol	**P1.23. Patterning of membrane adhesion under hydraulic stress** Margarita Staykova, Durham University	**P1.24. Multiple Intermediates in the Detergent-Induced Fusion of Single Lipid Vesicles** Lara Dresser, University of York
P1.25. A biophysical model of phagocytosis Peyman Shadmani, University Of Exeter	**P1.26. Mitotic Spindle Remodelling in Response to Severe Metabolic Stress** Jessica Tin Wai Ng, University College London	**P1.27. Less is more: Elucidating cellular transport using simplified cell models** Ran Tivony, University of Cambridge

P1.28. Exploring the shared membrane tension responsive machinery which controls cell migration and division Joseph Hetmanski, University of Manchester	**P1.29. Direct, nano-rheological studies of in-plane lipid dynamics in model and native membranes** William Trewby, Durham University	**P1.30. Biomimetic actin cortices shape cell-sized lipid vesicles** Lucia Baldauf,University College London
P1.31. APC-driven actin nucleation controls collective cell remodelling and motility in colorectal cancer cells Lautaro Baro, National Horizons Centre, Teesside University	**P1.32. A computational model for the transit of cancer cells through a constricted microchannel** Yi Sui, Queen Mary University of London	**P1.33. 2D Vertex model of early mammalian embryogenesis** Ms Alaina Cockerell, University of Exeter
P1.34. "The very beautiful principles of natural philosophy": Paper marbling and the physics of organic forms Robert Pepperell, Cardiff Metropolitan University	**P1.35. Functional Resilience of Mutually Repressing Motifs Embedded in Larger Networks** Mr. Pradyumna Harlapur, Cancer Systems Biology Lab, BSSE, IISc Bengaluru	**P1.36. Characterizing bacterial genes with bimodal distributions of single-cell protein levels** Ines Baptista, Tampere University
P1.37. A microfluidic platform to develop continously-operating nucleic acid based systems Kate Collins, Imperial College London	**P1.38. To be or not to be: Uncovering the Interplay between Phenotypic Robustness and Plasticity in Gene Regulatory Networks.** Anantha Samrajya Shri Kishore Hari, Indian Institute of Science	**P1.39. Stochastic modelling of heterogeneity in cell populations** Francesco Puccioni, Imperial College of London
P1.40. Sparse mathematical modelling of genetic networks Andreas Jørgensen, Imperial College London	**P1.41. Physical model of supercoiling mediated regulation in synthetic gene circuits** Victor Manuel Velasco Berrelleza, University of Leeds	**P1.42. Optimal prediction in a noisy environment** Jenny Poulton,AMOLF
P1.43. Emergence of ion-channel mediated electrical oscillations in Escherichia coli biofilms. Emmanuel Akabuogu, University of Manchester	**P1.44. Identification of the source of extrinsic noise from the stochastic dynamics of gene expression** Marta Biondo, University of Turin and INFN	**P1.45. Exploring transcription dynamics along the cell cycle with single-cell RNA-sequencing data** Dimitris Volteras, Department of Mathematics, Imperial College London

P1.46. Effect of receptor clustering on E.coli chemotaxis: Sensingversus adaptation Shobhan Dev Mandal, S. N. Bose National Centre for Basic Sciences	**P1.47. Dynamical landscape of epithelial–mesenchymal plasticity as an emergent property of coordinated teams in regulatory networks** Mohit Kumar Jolly, Indian Institute of Science	**P1.48. Characterizing the dynamic crosstalk between p53 and NF-kB and its regulation of gene expression and cancer cell fate** Emanuele Colombo, San Raffaele Scientific Institute
P1.49. Building computers with genetically engineered cells, which can compute, add and subtract numbers and solve maze problems Sangram Bagh, Saha Institute of Nuclear Physics	**P1.50. Bio-orthogonal conjugation for "wiring" redox active proteins to any conducting surface** Nicholas Yates, University of York	**P1.51. Bioelectric control of locomotor gaits in the walking ciliate Euplotes** Hannah Laeverenz-Schlogelhofer, University of Exeter
P1.52. Accurate dynamics from memory in chemical reactions with small copy numbers Moshir Harsh, Institute for Theoretical Physics, University of Göttingen	**P1.53. The pioneer Transcription Factor Oct4 can interpret and enhance nucleosome dynamics** Jan Huertas, University of Cambridge	**P1.54. Sticky proteins and moving genomes: a single-molecule perspective of pluripotent cell differentiation** Srinjan Basu, University of Cambridge
P1.55. Quantifying the fitness effects of stochastic gene expression Paul Piho, Imperial College London	**P1.56. Nucleosome repositioning in cell state transitions** Vlad Teif, University of Essex	**P1.57. Modulation of DNA entanglements by a Nucleoid Associated Protein** Yair Augusto Gutierrez Fosado, University of Edinburgh
P1.58. Investigating the role of SMC proteins and CTCF in gene expression by HiP-HoP simulations of degron experiments Cleis Battaglia, University of Edinburgh	**P1.59. Exploring the roles of myosin proteins in shaping nuclear organisation** Chris Toseland, University of Sheffield	**P1.60. Dissecting a transcription-coupled chromatin silencing mechanism through mathematical modelling** Govind Menon, John Innes Centre
P1.61. 4D chromatin domains: temporal and spatial resolution of topologically associated domains Alonso Pardal, University of Warwick	**P1.62. Response of bacterial regulatory networks under dynamic perturbations imaged with single cell resolution** Aske Petersen, University of Cambridge	**P1.63. Polymer Simulations Predict Gene Structural Heterogeneity and Transcription** Michael Chiang, University of Edinburgh

P1.64. On the inference of transcriptional burst kinetics from scRNA-seq data Wenhao Tang, Imperial College London	**P1.65. Melts of loop-extruded polymers** Filippo Conforto, University of Edinburgh	**P1.66. Biophysical Characterisation of NANOG-DNA interactions** Amandine Hong-Minh, University of Edinburgh
P1.67. Allosteric topological modulation of toehold-mediated strand displacement Andrew Stannard, Imperial College London	**P1.68. Understanding the relationship between mechanical and morphological changes in cells subjected to vibrational stimulation** Olivia Johnson-Love, University of Strathclyde	**P1.69. Towards mimicking the physical bone marrow microenvironment of hematopoietic stem cells** Juan Rubio Lara, University of York
P1.70. Circular RNA as a platform for gene expression control in synthetic biology and therapeutics Lisa Doetsch, Imperial College London	**P1.71. A geometry-driven organoid model for the investigation of the role of mechanical cues in pancreatic cancer** Sophie Kurzbach, CPA, TUM	**P1.72. Knitting with DNA** Catherine Fan, University of Oxford
P1.73. Enhancing the spectral range of bacterial and plant Light-Harvesting antenna complexes using synthetic chromophores incorporated into lipid membranes Ashley Hancock, University of Leeds	**P1.74. Protein-Functionalized DNA Hydrogels** Giorgia Palombo, University of Edinburgh	**P1.75. Novel Infrared Glucose Biosensors Optimised for in vivo Imaging** Katherine Sanders, Newcastle University
P1.76. Frost spreading and pattern formation on microstructured surfaces Lukas Hauer, Humboldt University	**P1.77. Video analysis of ciliated epithelia** Ricardo Fradique, University of Cambridge	**P1.78. Rotary motor powered gliding motility of a filamentous cyanobacterium as a possible driver of dynamic pattern formation within a biofilm** Jerko Rosko, University of Warwick
P1.79. Motile cilia induce velocity and diffusion within the Periciliary Layer Erika Causa, University of Cambridge, Physics Department	**P1.80. Mathematical modelling of trichome pattern formation in Arabidopsis thaliana** Toquinha-Oerlia Bergmann, Freiburg Center for Data Analysis and Modeling	**P1.81. Initially trapped individuals use wrinkles to escape from the centre in Bacillus subtilis biofilms during spatial expansions** Nikhil Krishnan, University of Cambridge

P1.82. Light controlled biohybrid microbots Viridiana Carmona Sosa, University of Cambridge	**P1.83. Towards robust Turing patterns in bacterial colonies** Martina Oliver Huidobro, Life Sciences Department, Imperial College London	**P1.84. Spontaneous Flow of Active Biofluids through Heterogeneous Environments** Tyler Shendruk, University of Edinburgh
P1.85. Heads or tails, SNP or error, mobile or not; Bayesian inference in the detection of mobile mRNA Franziska Hoerbst, John Innes Centre	**P1.86. Emergent surface tension drives self-organised patterning in Dictyostelium group migration** Giulia Celora, University College London	**P1.87. Directing and quantifying Min protein surface waves** Sabrina Meindlhumer, Kavli Institute of Nanoscience Delft, Delft University of Technology
P1.88. A Minimal Tissue Model: The Cell as a Physical Object Iain Muntz, Tu Delft	**P1.89. Vertex model for the turnover of squamous epithelial tissues** Joel Hochstetter, University of Cambridge	**P1.90. Multiscale measurements of mechanical stress in 3D co-cultures using a deformable micro-device** Hiba Belkadi, Institut Pasteur - Ecole Polytechnique
P1.91. Migratory role of extra embryonic tissue in during early avian embryo development Dr Lakshmi Balasubramaniam, Gurdon Institute	**P1.92. Mechanosensitivity and deformability of mechanically stimulated bone cells** Rui Sousa, University of Strathclyde	**P1.93. Light- controlled actomyosin contractility induces cell shape- changes** Mallica Pandya, University College London
P1.94. Laser ablation informed mechanical state of an early-stage chick embryo KVS Chaithanya, University of Dundee	**P1.95. How do we build brains? Investigating actomyosin contractility in hollowing epithelial tubes** Millie Race, University of Cambridge	**P1.96. Emergence of division of labor in tissues through cell interactions and spatial cues** Noa Moriel, Hebrew University of Jerusalem
P1.97. Data-driven modelling of tissue growth in Drosophila abdomen Andrea Cairoli, University of Cambridge	**P1.98. Bio-inspired ultrathin broadband sound absorber metamaterials** Marc Holderied, University of Bristol	**P1.99. Cell density as a negative feedback mechanism to ensure robustness of the body axis elongation process** Joana M. N. Vidigueira, Gurdon Institute, University of Cambridge

P1.100. Active gel theory description of actomyosin pulsations in epithelial cells Euan Mackay, University of Dundee	**P1.101. Applying Atomic Force Microscopy in Investigation of Structural Changes in Tomato Fruits Cell Wall** Lazar Novakovic, University of Leeds	**P1.102. A cell-based model for passive and active tissue rheology** Fikret Basar, University of Cambridge
P1.103. Tyssue: modelling morphogenesis from molecular to tissue scales Sophie Theis, Warwick Medical School, University of Warwick	**P1.104. Three-dimensional soft active matter modelling of corneal epithelial cell migration in vivo** Jon Martin Collinson, University of Aberdeen	**P1.105. Shape-tension coupling produces nematic order in an epithelium vertex model** Jan Rozman, Rudolf Peierls Centre for Theoretical Physics, University of Oxford
P1.106. Root angle is controlled by EGT1 in cereals employing a novel anti-gravitropic mechanism Jacob Pattem, Nottingham University	**P1.107. Nanoscale rheology via quantum photonic interference measurements of molecular rotor lifetimes** Raul Alvarez-Mendoza, University of Glasgow	**P1.108. Generating active T1 transitions through mechanochemical feedback** Rastko Sknepnek, University of Dundee
P1.109. Friction when changing neighbours : adhesion-regulated junction slippage controls cell intercalation dynamics in living tissue Jocelyn Etienne, Liphy, CNRS - Univ Grenoble Alpes	**P1.110. Extracellular matrix plasticity enables a pro-invasive mechanical cross-talk between cancer cells and cancer-associated fibroblasts** Hamid Mohammadi, Francis Crick Institute	**P1.111. Engineering covalently crosslinked protein hydrogels for precision medicine** Rossana Boni, University of Edinburgh
P1.112. Crosstalk between physical and biochemical cellular heterogeneity dictate collective cell migration during epithelial wound closure. Sindhu Muthukrishnan, Indian Institute of Science	**P1.113. Cellular Cruise Control: Mechanical energy dissipation regulates collective migration in epithelia** Simon Martina-Perez, University of Oxford	**P1.114. An imaging and FEM study into the mechanics of biological valves – how plants regulate photosynthesis in grasses** Clinton Durney, John Innes Centre
P1.115. Measuring diffusion constant and concentration of planer core polarity proteins molecules using fluorescence confocal microscopy Manoj Prasad, University of Sheffield	**P1.116. Tracking and tracing complex DNA structures** Libby Holmes, The University of Sheffield	**P1.117. Untwisting the Torsional Constraints on Processive DNA Replication; Decoding Genome Stability** Jamieson Howard, University of York

P1.118. Single molecule mechanical manipulation of tandem repeat proteins. Mohsin M. Naqvi University of Cambridge	**P1.119. Mechanical Biomolecule Encapsulation inside DNA Origami Boxes** Mr Matteo Marozzi The University Of York	**P1.120. Live-cell super resolution imaging of actin using LifeAct-14 with a PAINT-based approach** Haresh Bhaskar, University of Edinburgh
P1.121. Label-free identification of type III CRISPR-Cas second-messengers, one molecule at a time David Fuentenebro Wageningen University and Research	**P1.122. Exploring electric field sensing for solid state nanopore based DNA and Protein sequencing applications** Mr Muhammad Sajeer P Phd Scholar	**P1.123. Exploration of single-molecule dielectrophoresis by means of trapping and actuation** Janike Bolter University of Twente
P1.124. Generating, imaging, and characterising DNA plectonemes with combined transverse magneto-optical tweezers, fluorescence microscopy, and all-atom molecular dynamics simulation Jack W Shepherd, University of York	**P1.125. Visualising NDP52 shape DNA Confirmation** Daniel Rollins, University of Sheffield	**P1.126. Unpicking DNA Translocation in Nanopores with Simultaneous Single-Molecule Fluorescence and Optical Single Channel Recording** Mark Wallace, Kings College London
P1.127. Tractor beams and single molecules: How to visualize and manipulate single biomolecules in real-time Emma Verver, Lumicks	**P1.128. Tracking single molecules on fluorous coated surfaces: New toolkit to study biomolecule interactions** Carlos J Bueno Alejo, University of Leicester	**P1.129. Structural Conversion of alpha-Synuclein at the Mitochondria Induces Neuronal Toxicity** Mathew Horrocks, University of Edinburgh
P1.130. Single molecule experiments and theory of the bending and looping dynamics of DNA at the scale of its persistence length. Bhavin Khatri, Imperial College London	**P1.131. Single cohesin molecules generate force by two distinct mechanisms** Maxim Molodtsov, University College London	**P1.132. Rapid and Reversible Conformational Switching of Single DNA Hairpins** Sarah Graham, University of York

Poster Session 2
Tuesday 28 March, 5.30 PM – 7:30 PM
Room: Hall D
Sponsored by LUMICKS

P2.01. Investigating the evolution of developmental strategies using spatiotemporally patterned telencephalic organoids. Taniya Mandal, Francis Crick Institute	**P2.02. Novel mathematical models for fate selection in neural crest stem cells** Karol Bacik, University of Bath	**P2.03. Capillary forces functionally remodel membrane-bound organelles and condensates inside cells** Roland L. Knorr, Humboldt-Universität zu Berlin
P2.04. Gene expression dynamics during cell fate decisions in the retina Cerys Manning, University of Manchester	**P2.05. A study on the spatiotemporal dynamics and fitness landscape of bacteriophages** Hassan Alam, University of Cambridge	**P2.06. The interplay of size and pattern during evolution** Amy Bowen, Francis Crick Institute
P2.07. Curve registration – an approach for comparing gene expression dynamics over different developmental timescales Ruth Kristianingsih	**P2.08. Exploring the design principles of Arabidopsis in response to temperature changes** Paula Avello, University of Leeds	**P2.09. Blastoid-on-a-chip: development of a microfluidic platform for dynamic visualisation of pre-implantation embryogenesis** Georgina Glover
P2.10. YAP levels and dynamics control cell fate and proliferation Kirstin Meyer, University of California San Francisco	**P2.11. Dynamic Sigma Factor Patterning in Bacillus Subtilis Biofilms** Alexander Mckinnon, University of Cambridge	**P2.12. Fast fingerprint of insulin structure and stability assessment with A-TEEM (Absorbance-Transmission Excitation Emission Matrix) spectroscopy** Giorgia Marucci, HORIBA UK
P2.13. Advances in Localization Atomic Force Microscopy George Heath, University of Leeds	**P2.14. Role of Sam68 in phase separation and fibre formation** Cyril Dominguez, University of Leicester	**P2.15. The Cellular Electrome: The Extracellular Significance of Potassium** Oreoluwa Griffiths

P2.16. The Antagonistic Effect Of Oxysterols In ClyA Pore Formation Pathway Samlesh Choudhury, Indian Insitute of Science Banagalore	**P2.17. Heterogeneous endosomal dynamics within eukaryotic cells** Nickolay Korabel	**P2.18. Self-quenching behaviour of fluorescent probes incorporated within lipid membranes explored using electrophoresis and fluorescence lifetime imaging microscopy** Dr Peter Adams, University of Leeds
P2.19. Quantitative Microbiology with Microscopy: Effects of Projection and Diffraction Georgeos Hardo, University of Cambridge	**P2.20. The importance of water in membrane receptor function** Anthony Watts, Oxford University	**P2.21. Experimental investigation of non-classical excited-states energy transfer dynamics in green fluorescent protein tandem assemblies using time-resolved fluorescence anisotropy** Alejandro Sanchez-pedreno Jimenez, University of Surrey
P2.22. A neutron diffraction study finds that Trimethylamine-N-oxide drives urea out of a β-turn's solvation shell Mazin Nasralla, University of Leeds	**P2.23. Viral RNA Conformation Analysis via Nanotechnology at Single Molecule Resolution** Chalmers Chau, University of Leeds	**P2.24. Uncovering conserved mechanisms in the assembly and activity of eukaryotic and archaeal minichromosome maintenance proteins** Oliver Noble, University of York
P2.25. Single-molecule imaging of Botulinum Neurotoxin translocation Mrs Joanne Carniello, King's College London	**P2.26. Probing the Redox Chemistry and Structure Function Relationship of LPMO's via Electrochemistry** Connor Miles, University of York	**P2.27. A new twist on drug design: AdhE spirosomes as cross species anti-virulence targets (Withdrawn)** Ester Serrano, University of Glasgow
P2.28. Ultrasensitive fluorescence detection of conformational changes in single lipid vesicles Steven Quinn, University of York	**P2.29. Interaction between the chlamydia effector protein TarP and the SH2 domain of Vav2** Tharin M. A. Blumenschein, University of East Anglia	**P2.30. A novel RNA thermosensor element regulating teichoic acid biosynthesis in obligate human pathogen Streptococcus pneumoniae (SPN)** Mr Kuldeep Sharma, Indian Institute of Technology Bombay (iit Bombay)

P2.31. Transient structural dynamics during allosteric regulation of glycogen phosphorylase Jonathan Phillips, University of Exeter	**P2.32. Tackling topology with TopoStats** Max Gamill, University of Sheffield	**P2.33. A toolkit of customised protein sensors for interrogating mechanical forces in the cell** Maria Zacharopoulou, University of Cambridge
P2.34. A novel sliding interaction between the extracellular matrix polysaccharide hyaluronan and its lymphatic vessel endothelial receptor LYVE-1 that regulates immune cell trafficking Ralf Richter, University of Leeds	**P2.35. Structural dynamics of membrane-associated proteins at microsecond timescales and sub-nanometre resolution with High-Speed AFM** Tabitha Storer, University of Leeds	**P2.36. Deciphering the structure of integration host factor with supercoiled DNA minivectors** Ms Neha Ramteke, University of York
P2.37. Single-molecule and super-resolved imaging deciphers membrane behavior of onco-immunogenic CCR5 Patrick Hunter, University of York	**P2.38. Passive microfluidics for the characterisation of neuronal signals in live nematodes** Nino Läubli, University of Cambridge	**P2.39. Biofilm Water Channel Network Model forBacterial Communication** Yanahan Paramalingam, University of Warwick
P2.40. Modeling the Growth of Kidney Organoids subject to optogenetically-induced BMP4 Morphogens Jonas Pleyer	**P2.41. Decoherence and Energy Transfer Dynamics of Green Fluorescent Proteins** Anna Cusick, Surrey University	**P2.42. DNA origami with fluorescent proteins** Callum McKeaveney University Of Surrey
P2.43. How to tune the tempo of embryonic development across species: a mathematical toolkit Charlotte Manser, Imperial College London	**P2.44. Using Shape Fluctuations to Probe the Mechanics of Stress Granules** Jack Law, University of Bergen	**P2.45. Multimodal quantum sensors for detecting nanoscale dynamics in C. elegans** Sophia Belser, University of Cambridge
P2.46. Modelling DNA in Complex Topologies: The Role of Gyrase Katy Hollands, University of York	**P2.47. Correlative light electron microscopy using small gold nanoparticles as single probes** Paola Borri, Cardiff University	**P2.48. Broadband Cavity Enhanced UV-VIS Absorption Spectroscopy for Picolitre Liquid Samples** Imogen Fermor-Worth, University of Exeter

P2.49. A view to a kill: using 3D holographic microscopy to study the motility behaviour of predatory bacteria Emma Brock, University of Cambridge	**P2.50. A fluorescence, microfluidic microscope built for microgravity and extreme Earth environments** Katrina Crompton, Newcastle University Biosciences Institute	**P2.51. Using light to control cellular energetics in Escherichia coli** Tommy Schmidlechner, University of Edinburgh
P2.52. Selective manipulation of mitochondria function and cell viability in cancer cells through blue light and photosensitizer agent Emily Skates, University of Warwick	**P2.53. Investigating the processes of life in the cold: high resolution imaging of Antarctic fish cells** Anne-pia Marty, University of Cambridge	**P2.54. Analysis of Common Motifs in Metabolic Systems with emphasis on the role of conserved moieties** Robert West, University of Warwick
P2.55. Intracellular multimodal temperature and viscoelasticity sensing using nitrogen-vacancy defects in carbon nanocrystals Jack Hart, University of Cambridge	**P2.56. Effects of molecular noise on cell size control** Motasem ElGamel, University of Pittsburgh	**P2.57. Unobtrusive wearable sensing to estimate human circadian process** Nemanja Cabrilo, TU/e
P2.58. Tracking the life history of chromosomes (kinetochores) in human cell division Abdullahi Daniyan, University of Warwick	**P2.59. Optical control of a synthetic oscillatory circuit** Maria Cristina Cannarsa, Sapienza University of Rome	**P2.60. Dynamics of membrane proteins using high-speed atomic force microscopy** Abeer Alshammari, University of Leeds
P2.61. Developing a system for probing phase behaviour in synthetic proteo-liposomes/polymersomes Thomas Gregson, University of Leeds	**P2.62. "Each Drop of Blood Measures its Time": Electrophysiological Rhythms in Blood Cells** Fatima Labeed, University f Surrey	**P2.63. Effect of Integrin αIIb/β3 proteins on lipid properties** Ubeiden Cifuentes Samboni, Centro de Investigaciones en Química Biológica de Córdoba (CIQUIBIC, UNC-CONICET)
P2.64. Interfacial residues in protein-protein complexes are in the eyes of the beholder Jayadevan Parvathy, Indian Institute of Science Bangalore	**P2.65. Evaluating the Structural Dynamics of Photosynthetic Proteins using High-Speed Atomic Force Microscopy and Advanced Fluorescence Methods** Maya Tekchandani, University of Leeds	**P2.66. Kinetics of surface-immobilized, pH-sensitive DNA triplex switches** Francisca D'Rozario, University of York

P2.67. Structural analysis of the influenza genome by high-throughput single virion DNA-PAINT Christof Hepp, Oxford University	**P2.68. Investigating the binding pocket of the glycine receptor through atomic simulation and metadynamics** Guangpeng Xue, Kings' College London	**P2.69. High-resolution mid-infrared imaging of cervical lymph node metastasis in oral squamous cell carcinoma** Safaa Al Jedani, University of Liverpool
P2.70. Progress in interferometric microscopy: from nanoparticles detection to dynamic cell imaging Martine Boccara, Musum of Natural History Paris	**P2.71. High-Speed and Sensitive Flow Cytometry using Fluorescence Oblique Plane Microscopy** Amir Rahmani, University of Leeds	**P2.72. Molecular Mechanisms of Lipid-Induced Amyloid Fibril Formation from Global Fitting of Kinetic Models** Alisdair Stevenson, ETH Zürich
P2.73. High Throughput Single Cell Bacterial Imaging Morten Kals, University of Cambridge	**P2.74. Fusogenic liposome interactions with bacterial envelopes** Anna Scheeder, University of Cambridge	**P2.75. Seeing is believing: Imaging across scales to investigate the Actin nucleation activity of Adenomatous Polyposis Coli (APC)** Mari Angeles Juanes, Teesside University / Centro De Investigacion Principe Felipe
P2.76. Mapping nanostructural changes in E.coli Peptidoglycan Abimbola Feyisara Olulana, Department of Physics and Astronomy, University of Sheffield	**P2.77. Integrating analog and digital modes of gene expression at Arabidopsis FLC** Svenja Reeck, John Innes Centre	**P2.78. How worms explore 3D space** Thomas Ilett, University of Leeds
P2.79. Deciphering oligomeric states in nuclear condensates using single-molecule step calibrated confocal microscopy Alex Payne-Dwyer, University of York	**P2.80. CRISPR-trapping bacteriophages to shine the light on infection events** Temur Yunusov, University of Cambridge	**P2.81 Significant Electrophysiological Changes in White Blood Cells due to Hyperosmotic Stress in ME/CFS** Krista Clarke, University of Surrey
P2.82. Emergence of chiral muscle fibers and its role in tissue deformation during mouse heart morphogenesis Naofumi Kawahira, UCLA	**P2.83. scPrisma infers, filters, and enhances topological signals in single-cell data using spectral template matching** Jonathan Karin	**P2.84. Spatial and temporal heterogeneity in human cell division dynamics** Nigel Burroughs, University of Warwick

P2.85. Unnatural Light Stimulation of a Natural System in the Cyanobacterium Synechococcus elongatus Kieran Randall, University of Warwick	**P2.86. Rapid detection and classification of motile cell tracks in 3D** Samuel Matthews, University of York	**P2.87. From Live Cells to Single Molecules: Unravelling the Interplay Between 3D Genomic Structure and Gene Expression** Faeeza Lorgat, University of Sheffield
P2.88. New chemical and microscopy tools targeting the complement system in neuroinflammation Dominic Alderson, Newcastle University	**P2.89. Optimal Control Theory in Cancer Chronotherapy** Byron Tzamarias, Mathematics of Real-World Systems CDT, Mathematics Institute, University of Warwick	**P2.90. Using Nanomagnetic Heterostructures for the Improved Detection and Treatment of Kidney Cancer** Rachel Matthews, University of Cambridge
P2.91. Lithographically defined magnetic heterostructures for the targeted screening of kidney cancer. Selma Leulmi Pichot, University of Cambridge	**P2.92. Dielectrophoresis and Zeta Potential as Potential Bladder Cancer Diagnostics** Rashedul Hoque, University of Surrey	**P2.93. Optimisation of patient futures in cancer therapy** Nigel Burroughs, University of Warwick
P2.94. Vinculin recruitment to α-catenin halts the differentiation and maturation of enterocyte progenitors to maintain homeostasis of the Drosophila intestine Golnar Kolahgar, University of Cambridge	**P2.95. Mechanisms underlying symmetry breaking in embryonic development** Shayan Shamipour, University of Zurich	**P2.96. Mechanical drivers of early mammalian development** Marta Urbanska, University of Cambridge
P2.97. Intraoperative gamma imaging technologies: Could it be a game changer? Mohammed Alqahtani, King Khalid University	**P2.98. Condensate's ageing modelled through molecular dynamics: protein structural transitions critically transform the network connectivity and viscoelasticity of RNA-binding protein condensates** Ignacio Sanchez Burgos, University of Cambridge	**P2.99. Microskøpe: a 3D-printed flat-pack microscope for mapping phase diagrams** Clement Degut, University of York

P2.100. A Molecular Backbone Reduces the Minimal Kit Required for Structure Assembly Jeremy Guntoro, Imperial College London	**P2.101. Optimisation of FLIM parameters for quantifying NAD(P)+/ NAD(P)H dynamics in cellular metabolism** Adil Mustafa, University of Warwick	**P2.102. Microfluidic DNA self-assembly methods for digital data storage** Max Earle, University of Cambridge
P2.103. Data-driven mathematical modeling of the Wheat circadian clock Abhishek Upadhyay, University of Cambridge	**P2.104. Understanding the Photophysics of Carotenoids in Bacterial Light Harvesting Protein Complexes** Sagar Satpathi, University Of Leeds	**P2.105. Building and breaking epithelial tubes** Clare Buckley, University of Cambridge
P2.106. Mechanical mapping of fate maps in the early Xenopus embryo Ross McGinn, University of Cambridge	**P2.107. Universal codes for the phase behaviour of prion-like low-complexity domains** Maria Julia Maristany, University of Cambridge	**P2.108. The hyperactivity of estrogen receptor fusion proteins in breast cancer** Ana-Maria Gherghelas, University of Sheffield
P2.109. Understanding Dynamin Polymerization by Single-molecule Counting and Particle-tracking Using Mass Photometry Manish Singh Kushwah, University of Oxford	**P2.110. Viscosity of intrinsically disordered proteins in phase separated condensates. Three different approaches for simulations** Andres R. Tejedor	**P2.111. Single-molecule trajectories in chemically active condensates** Stefano Bo, King's College London
P2.112. Targeted disruption of transcription bodies causes widespread activation of transcription Martino Ugolini, Unil (lausanne)	**P2.113. Molecular and emergent dynamics of recombinant algal pyrenoids by single-molecule tracking and optical tweezers** Alex Payne-Dwyer, University of York	**P2.114. Microfluidic technologies for dynamic compositional control of artificial cell systems** Marcus Fletcher, Imperial College London
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